

NOTE

Nest and Prey of *Solierella vierecki* (Rohwer)
(Hymenoptera: Sphecidae: Larrinae)

Solierella vierecki (Rohwer), known from Colorado, Arizona, and California (Krombein, K.V. 1979. Hymenoptera in America north of Mexico 2: 1635–1638), is probably widely distributed in the deserts of the southwestern U.S. and northern Mexico. On 12 September 1995 at Apache, Cochise Co., AZ, we observed a female of this small larrine wasp as she completed nesting. Her nest was in an open area of horizontal ground surrounded by a diversity of low xeric vegetation that included *Eriogonum*, *Euphorbia*, *Gutierrezia*, *Lepidium*, *Mentzelia*, and *Solanum*.

The wasp, 4.3 mm long, was first noticed because of her dance-like flight at her nest site. The soil was hard packed, consisting of coarse pebbles in a fine, grayish clay/sand matrix. The burrow was plugged with tiny soil particles and she was removing what remained of the tumulus surrounding the former nest opening. Without pause, over a period of two minutes, she repeatedly landed, picked up a particle of soil, flew forward 5–8 cm from the nest in any direction, and dropped her load while in flight. She flew rapidly at a height of ca 4 cm above the ground. She worked methodically, causing the barely visible spoil heap to disappear, thus obscuring all traces of a nest burrow.

The nest consisted of a single shaft penetrating the ground at a 45° angle and extending to a depth of 2.5 cm. This burrow,

completely filled with loose soil particles, ended in a single horizontal cell 0.5 cm long and slightly larger than the 2.0 mm tunnel diameter. Williams (1950. Proceedings of the California Academy of Sciences (4) 26: 355–417) placed *S. vierecki* as the sole member of his Group II, and suggested that it might prey upon short-horned grasshoppers as do members of his Groups I and III. Indeed, the single cell we excavated contained three prey specimens, 4.1–4.8 mm long, of *Eritettix simplex* (Scudder) (Acrididae, Gomphocerinae) the velvet striped grasshopper. The paralyzed nymphs lay on their sides, stacked upon each other. The largest specimen on the bottom, had the cylindrical *S. vierecki* egg, 0.43 mm long, attached to its abdomen near the base of the hind leg. The egg detached from the body when the grasshopper was placed in an alcohol vial.

We thank David A. Nickle, Systematic Entomology Laboratory, U.S. Department of Agriculture, for identifying the grasshopper prey. Also, we are grateful to personnel of the American Museum's Southwestern Research Station, Portal, AZ, for hospitality and laboratory facilities during our field work.

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